

Amendments to the Claims:

The following listing of claims replaces all prior versions and listings of the claims in this application.

Listing of the Claims

1. (Currently Amended) A method for proliferating ~~terminal-differentiated-cells~~ cardiomyocytes comprising: introducing a D-type cyclin and a cyclin dependent kinase into the nucleus of ~~terminal-differentiated-cells~~ cardiomyocytes, and cultivating or holding said cells, wherein said cyclin dependent kinase is CDK4 or CDK6.
2. (Currently Amended) A method for proliferating ~~terminal-differentiated-cells~~ cardiomyocytes comprising: adding [[a]] nucleotide sequences coding for a nuclear localization signal to at least one D-type cyclin gene and a cyclin dependent kinase gene; and introducing each of said genes to ~~terminal-differentiated-cells~~ cardiomyocytes *in vitro*, and then cultivating said cells, or introducing each of said genes directly to ~~terminal-differentiated-cells~~ cardiomyocytes *in vivo*, wherein said cyclin dependent kinase is CDK4 or CDK6.
3. (Cancelled)
4. (Previously Presented) The method of claim 1 or 2, wherein said cyclin dependent kinase is activated by a mammalian cyclin.
5. (Cancelled)
6. (Currently Amended) The method of claim 2, wherein said cyclin gene and said cyclin dependent kinase gene are transferred to the ~~terminal-differentiated-cells~~ cardiomyocytes using an adenovirus vector.
7. (Withdrawn) A recombinant vector comprising a cyclin gene comprising a nucleotide sequence coding for a nuclear localization signal.

8. (Withdrawn) A recombinant vector comprising a cyclin gene and a cyclin dependent kinase gene, wherein at least one of said genes is attached with a nucleotide sequence coding for a nuclear localization signal.
9. (Withdrawn) The recombinant vector of claim 7 or 8, wherein said cyclin is a cyclin that is capable of activating a mammalian CDK4 or CDK6.
10. (Withdrawn) The recombinant vector of claim 7 or 8, wherein said cyclin dependent kinase is a cyclin dependent kinase that is activated by cyclin D1, D2, or D3.
11. (Withdrawn) The recombinant vector of claim 7 or 8, further comprising an adenovirus vector.
12. (Withdrawn) An isolated mammalian cell or tissue that was proliferated by the method of claim 1 or 2.
13. (Withdrawn) A pharmaceutical composition for proliferating terminal differentiated cells or tissues, comprising an effective amount of the recombinant vector of claim 7, 8, or 15.
14. (Withdrawn) A method for treating cardiopathy in a human patient comprising introducing the pharmaceutical composition of claim 13 into the myocardium of the patient, and proliferating a cardiomyocyte in the patient.
15. (Withdrawn) A recombinant vector comprising a cyclin dependent kinase gene comprising a nucleotide coding for a nuclear localization signal.
16. (Currently Amended) The method of claim 2, wherein said genes comprising said nucleotide sequences is are introduced to the ~~terminal-differentiated-cells~~ cardiomyocytes *in vitro*, and cultivating said cells.

17. (Currently Amended) The method of claim 2, wherein said genes comprising said nucleotide sequences is are introduced to the ~~terminal-differentiated cells~~ cardiomyocytes *in vivo*.
18. (Previously Presented) The method of claim 1 or 2, wherein said cyclin activates CDK4.
19. (Previously Presented) The method of claim 1 or 2, wherein said cyclin activates CDK6.